

The following antibiograms are profiles of antimicrobial susceptibility testing results of pathogens submitted to LifeLabs from January 1, 2018 to December 31, 2018 as per the Clinical and Laboratory Standards Institute (CLSI) document M39-A4.

## Respiratory Tract Pathogens (Sputum)

ORGANISM	Number of isolates tested	ANTIBIOTIC (% susceptible)																
		Amoxicillin - Clavulanate	Ampicillin <sup>1</sup>	Azithromycin	Ceftriaxone	Cefuroxime	Ciprofloxacin	Clarithromycin	Doxycycline	Erythromycin	Levofloxacin	Tetracycline	Penicillin (oral)	TMX	Ceftazidime	Gentamicin	Meropenem	Piperacillin-Tazobactam
<i>Haemophilus influenzae</i>	213	98	67		100		99				97	R	71					
<i>Moraxella catarrhalis</i> <sup>2</sup>	157		R									R						
<i>Pseudomonas aeruginosa</i>	114						81							92	87	96	95	99
<i>Streptococcus pneumoniae</i> <sup>3</sup>	100	>95	>95	60	>95	>95		60	47	60	98		>70	72				

<sup>1</sup>Results of ampicillin testing can be used to predict results for amoxicillin.

<sup>2</sup>Susceptibility testing for *Moraxella catarrhalis* is not routinely performed. Most clinical isolates of *M. catarrhalis* are resistant to amoxicillin but susceptible to amoxicillin-clavulanate, macrolides, trimethoprim-sulfamethoxazole, quinolones, cefuroxime, cefixime, and ceftriaxone.

<sup>3</sup>Detailed data for beta-lactam antibiotics is not available for *S. pneumoniae* due to differences in testing for oxacillin-susceptible and resistant strains.

## Skin and Soft Tissue Pathogens

ORGANISM	Number of isolates tested	ANTIBIOTIC (% susceptible)													
		Ampicillin	Azithromycin	Ceftriaxone	Cephalothin / Cephalixin	Clarithromycin	Clindamycin	Cloxacillin	Erythromycin	Levofloxacin	Linezolid	Penicillin	Tetracycline <sup>1</sup>	TMX	Vancomycin
<i>S. aureus</i> (MSSA)	8454				100		84	100	79				95	99	
<i>S. aureus</i> (MRSA)	2136	R		R	R		73	R	26		100	R	81	96	100
Group A Streptococcus <sup>2</sup>	227	100	78	100	100	78	79		78	100		100		R	100
Group B Streptococcus <sup>2</sup>	77	100	47	100	100	47	51		47	97		100		R	100

<sup>1</sup>Isolates susceptible to tetracycline are predictably susceptible to doxycycline; however, some isolates that are resistant to tetracycline may be susceptible to doxycycline.

<sup>2</sup>Groups A, B, C and G streptococcal isolates are predictably susceptible to penicillin, amoxicillin and cephalosporins, therefore antimicrobial susceptibility testing is not routinely performed.

## Urinary Tract Pathogens

ORGANISM	Number of isolates tested	ANTIBIOTIC (% susceptible)								
		Ampicillin <sup>1</sup>	Ceftriaxone	Cephalothin / Cephalixin	Ciprofloxacin	Fosfomycin <sup>2</sup>	Gentamicin	Nitrofurantoin	Tetracycline <sup>3</sup>	TMX
<i>Escherichia coli</i>	36585	59	92	54	84	98	93	97	75	78
Group B Streptococcus <sup>4</sup>	6406						R			R
<i>Enterococcus faecalis</i>	5821	100		R	81	99		99	21	R
<i>Klebsiella pneumoniae</i>	4295	R	96	94	97		98	36	88	94
<i>Proteus mirabilis</i>	2231	79	97	92	89		92	R	R	79

<sup>1</sup> Results of ampicillin testing can be used to predict results for amoxicillin.

<sup>2</sup>Fosfomycin testing was performed on a limited number of *E. coli* (n=2551) and *E. faecalis* (n=269) isolates.

<sup>3</sup>Isolates susceptible to tetracycline are predictably susceptible to doxycycline; however, some isolates that are resistant to tetracycline may be susceptible to doxycycline.

<sup>4</sup>Antimicrobial susceptibility testing is not routinely performed on urine isolates of group B Streptococcus because such infections usually respond to antibiotics commonly used to treat uncomplicated urinary tract infections, such as ampicillin, cephalosporins and nitrofurantoin. Susceptibility to fluoroquinolones is variable.

	90-100% of isolates are susceptible to the antibiotic indicated ( <b>GOOD CHOICE</b> )
	51-89% of isolates are susceptible to the antibiotic indicated ( <b>INTERMEDIATE CHOICE</b> )
	0-50% of isolates are susceptible to the antibiotic indicated ( <b>POOR CHOICE</b> )
R	The organism is inherently resistant to the antibiotic indicated <b>OR</b> is not recommended due to poor clinical response and/or poor activity
	Antimicrobial susceptibility testing not performed

**TMX** = Trimethoprim-Sulfa; **MSSA** = Methicillin-susceptible *Staphylococcus aureus*; **MRSA** = Methicillin-resistant *Staphylococcus aureus*